Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A system for providing a framework for network appliance management in a distributed computing environment, comprising:

an appliance status table recording a status report periodically received from a status daemon autonomously operating on each of a plurality of network appliances, each status report containing health and status information and application-specific data [[~~for~~]] pertaining to autonomous configuration and management of the each network appliance; and

a catalog server maintaining configuration settings for each network appliance progressively assembled concurrent to providing installable components and dynamically providing a catalog listing currently installable components for each network appliance based on the configuration settings independently received from the network appliance.

2. (original): A system according to Claim 1, further comprising:

a network operations center establishing a secure session with each network appliance.

3. (original): A system according to Claim 1, further comprising:

a network operations center installing an initial set of installable components on each network appliance during a bootstrap configuration.

4. (original): A system according to Claim 1, wherein the currently installable components comprise at least one self-installable package, further comprising:

a component server supplying the at least one package for installation responsive to a request from one such network appliance.

5. (original): A system according to Claim 4, further comprising:
a crypto module digitally signing the at least one package for the network operations center prior to being supplied for installation.

6. (original): A system according to Claim 4, further comprising:
a crypto module encrypting the at least one package prior to being supplied for installation.

7. (original): A system according to Claim 1, wherein the installable components comprise at least one file, further comprising:
a component server supplying the at least one file responsive to a request from one such network appliance.

8. (original): A system according to Claim 7, wherein the component server establishes a secure session prior to the at least one file being supplied for installation.

9. (original): A system according to Claim 7, further comprising:
a file information subdirectory specifying installation instructions for the at least one file in a pre-determined entry prior to the at least one file being supplied for installation.

10. (original): A system according to Claim 1, further comprising:
a proxy component server staging the currently installable components for retrieval in a separate components database.

11. (original): A system according to Claim 1, wherein the distributed computing environment is TCP/IP-compliant.

12. (currently amended): A method for providing a framework for network appliance management in a distributed computing environment, comprising:

recording a status report periodically received from a status daemon autonomously operating on each of a plurality of network appliances, each status report containing health and status information and application-specific data [[~~for~~]] pertaining to autonomous configuration and management of the each network appliance;

maintaining configuration settings for each network appliance progressively assembled concurrent to providing installable components; and

dynamically providing a catalog listing currently installable components for each network appliance based on the configuration settings independently received from the network appliance.

13. (original): A method according to Claim 12, further comprising:

establishing a secure session with each network appliance.

14. (original): A method according to Claim 12, further comprising:

installing an initial set of installable components on each network appliance during a bootstrap configuration.

15. (original): A method according to Claim 12, wherein the currently installable components comprise at least one self-installable package, further comprising:

supplying the at least one package for installation responsive to a request from one such network appliance.

16. (original): A method according to Claim 15, further comprising:

digitally signing the at least one package prior to being supplied for installation.

17. (original): A method according to Claim 15, further comprising:

encrypting the at least one package prior to being supplied for installation.

18. (original): A method according to Claim 12, wherein the installable components comprise at least one file, further comprising:

supplying the at least one file responsive to a request from one such network appliance.

19. (original): A method according to Claim 18, further comprising:

establishing a secure session prior to the at least one file being supplied for installation.

20. (original): A method according to Claim 18, further comprising:

specifying installation instructions for the at least one file in a pre-determined entry prior to the at least one file being supplied for installation.

21. (original): A method according to Claim 12, further comprising:

staging the currently installable components for retrieval in a separate components database.

22. (original): A method according to Claim 12, wherein the distributed computing environment is TCP/IP-compliant.

23. (original): A computer-readable storage medium holding code for performing the method according to Claims 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, or 22.

24. (currently amended): A system for autonomously managing a network appliance deployed within a distributed computing environment, comprising:

an internal catalog of components installed on one such network appliance identified by component and version; and

a status daemon operating autonomously on the one such network appliance and periodically providing a status report containing health and status

information and application-specific data [[~~for~~]] pertaining to autonomous configuration and management of the one such network appliance; and

a catalog checker obtaining a catalog of currently installable components dynamically generated for the one such network appliance based on the status report independently received from the one such network appliance and determining non-current components by comparing the components and versions listed in the obtained catalog against the internal catalog.

25. (original): A system according to Claim 24, further comprising:

a network operations center negotiating a secure connection with the one such network appliance.

26. (original): A system according to Claim 24, further comprising:

an initial plug-in executed on the one such network appliance.

27. (original): A system according to Claim 24, further comprising:

a post plug-in executed on the one such network appliance.

28. (original): A system according to Claim 24, further comprising:

a network operations center broadcasting a query message to each such network appliance to trigger a status report.

29. (original): A system according to Claim 24, wherein the components comprise at least one self-installable package, further comprising:

an installer obtaining the at least one self-installable package and installing the at least one self-installable package per instructions encoded therein.

30. (original): A system according to Claim 29, wherein the components further comprise at least one file dependent on the at least one self-installable package, further comprising:

an installer obtaining the at least one file subsequent to installing the at least one self-installable package and installing the at least one self-installable package per instructions stored in a pre-determined entry.

31. (original): A system according to Claim 29, further comprising:
a component server negotiating a non-secure session prior to obtaining the at least one self-installable package.

32. (original): A system according to Claim 29, further comprising:
a crypto module at least one of authenticating and decrypting the at least one self-installable package prior to installing the at least one self-installable package.

33. (original): A system according to Claim 29, wherein the instructions comprise an executable installation program plus one or more files to be installed.

34. (original): A system according to Claim 29, wherein the components further comprise at least one file, further comprising:
an installer obtaining the at least one file and installing the at least one self-installable package per instructions stored in a pre-determined entry.

35. (original): A system according to Claim 34, further comprising:
a component server negotiating a secure session prior to obtaining the at least one self-installable package.

36. (original): A system according to Claim 34, wherein the pre-determined entry comprise a file information subdirectory identifying installation instructions.

37. (original): A system according to Claim 29, wherein at least one such network appliance performs one of electronic mail anti-virus scanning, content filtering, packet routing, and file, Web and print servicing.

38. (original): A system according to Claim 29, wherein the distributed computing environment is TCP/IP-compliant.

39. (currently amended): A method for autonomously managing a network appliance deployed within a distributed computing environment, comprising:

maintaining an internal catalog of components installed on one such network appliance identified by component and version;

periodically providing a status report containing health and status information and application-specific data [[~~for~~]] pertaining to autonomous configuration and management of the one such network appliance and received from a status daemon autonomously operating on for the one such network appliance;

obtaining a catalog of currently installable components dynamically generated for the one such network appliance based on the status report independently received from the one such network appliance; and

determining non-current components by comparing the components and versions listed in the obtained catalog against the internal catalog.

40. (original): A method according to Claim 39, further comprising:

negotiating a secure connection with the one such network appliance.

41. (original): A method according to Claim 39, further comprising:

executing an initial plug-in on the one such network appliance.

42. (original): A method according to Claim 39, further comprising:

executing a post plug-in on the one such network appliance.

43. (original): A method according to Claim 39, further comprising:

broadcasting a query message to each such network appliance to trigger a status report.

44. (original): A method according to Claim 39, wherein the components comprise at least one self-installable package, further comprising:

obtaining the at least one self-installable package; and

installing the at least one self-installable package per instructions encoded therein.

45. (original): A method according to Claim 44, wherein the components further comprise at least one file dependent on the at least one self-installable package, further comprising:

obtaining the at least one file subsequent to installing the at least one self-installable package; and

installing the at least one self-installable package per instructions stored in a pre-determined entry.

46. (original): A method according to Claim 44, further comprising:

negotiating a non-secure session prior to obtaining the at least one self-installable package.

47. (original): A method according to Claim 44, further comprising:

at least one of authenticating and decrypting the at least one self-installable package prior to installing the at least one self-installable package.

48. (original): A method according to Claim 44, wherein the instructions comprise an executable installation program plus one or more files to be installed.

49. (original): A method according to Claim 39, wherein the components further comprise at least one file, further comprising:

obtaining the at least one file; and

installing the at least one self-installable package per instructions stored in a pre-determined entry.

50. (original): A method according to Claim 49, further comprising:

negotiating a secure session prior to obtaining the at least one self-installable package.

51. (original): A method according to Claim 49, wherein the pre-determined entry comprise a file information subdirectory identifying installation instructions.

52. (original): A method according to Claim 39, wherein at least one such network appliance performs one of electronic mail anti-virus scanning, content filtering, packet routing, and file, Web and print servicing.

53. (original): A method according to Claim 39, wherein the distributed computing environment is TCP/IP-compliant.

54. (original): A computer-readable storage medium holding code for performing the method according to Claims 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, or 53.